CLAIM LISTING

A listing of an entire set of claims 1-9 is submitted herewith per 37 CFR §1.121. This listing of claims 1-9 will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) An activity monitor comprising:

a measurement unit including a plurality of motion sensors for producing respective sensor signals indicative of motion experienced thereby within a coordinate system; and

a processor operable to receive the sensor signals from the measurement unit, and to process the sensor signals in accordance with a predetermined method,

characterized in that the processor is operable to process the sensor signals as respective vector components to produce a resultant vector within the coordinate system.

2. (Original) An activity monitor as claimed in claim 1, wherein the motion sensors are accelerometers.

3. (Original) An activity monitor as claimed in claim 1 or 2, wherein the motion sensors are arranged to be mutually orthogonal.

4. (Currently Amended) An activity monitor as claimed in claim 3, wherein the processor is operable to calculate the magnitude of the resultant vector according to the following expression:

[a] $|a|=v(a_x^2 + a_y^2 + a_z^2)$, where a is the magnitude of the resultant vector, a_x, a_y and a_z are respective sensor signals.

5. (Currently Amended) An activity monitor as claimed in claim 4, wherein values of [a] |a| are stored in a lookup table.

6. (Original) An activity monitor as claimed in claim 4, wherein the processor is operable to calculate the direction of the resultant vector.

7. (Currently Amended) A method of monitoring activity using a plurality of motion sensors which are operable to produce respective sensor signals indicative of motion experienced thereby within a coordinate system, the method comprising receiving the sensor signals and processing the signals in accordance with a predetermined method, characterized in that the sensor signals are processed as respective vector components to produce a resultant vector within the coordinate system.

8. (Currently Amended) A method as claimed in claim 7, wherein the magnitude of the resultant vector is calculated according to the following expression:

$a=v(a_x^2 + a_y^2 + a_z^2)$, where a is the magnitude of the resultant vector, a_x, a_y and a_z are respective sensor signal.

9. (Original) A method as claimed in claim 7 or 8, comprising calculating and storing the direction of the resultant vector.